

Patent Claims:

1 – 11 (canceled)

12. (new) A steam generator, comprising:

an evaporator or once-through heating area comprising a number of steam-generator tubes that are connected in parallel and through which a flow medium flows and configured such that a steam-generator tube that is heated to a greater extent compared with a further steam-generator tube of the same evaporator or once-through heating area has a greater throughput of the flow medium than the further steam-generator tube, disposed within a heating-gas duct;

a heating gas that flows in a substantially horizontal direction through the heating gas duct; and

a discharge collector that is connected downstream of the steam-generator tubes of the evaporator or once-through heating area on the flow-medium side and is oriented with its longitudinal axis essentially parallel to the heating-gas direction.

13. (new) The steam generator according to Claim 12, wherein the respective discharge collector essentially a cylindrical body.

14. (new) The steam generator according to Claim 12, wherein the evaporator or once-through heating area further comprises a number of tube layers arranged one behind another as viewed in the heating-gas direction, each of the tube layers being formed from a number of steam-generator tubes arranged side-by-side as viewed in the heating-gas direction.

15. (new) The steam generator according to Claim 14, wherein the evaporator or once-through heating area is assigned a number corresponding to the number of steam-generator tubes in each tube layer, of discharge collectors, and oriented with their longitudinal axis essentially parallel to the heating-gas direction, whereby one steam-generator tube of each tube layer discharges into each discharge collector.

16. (new) The steam generator according to Claim 12, wherein a further evaporator or once-through heating area (10) is disposed on the flow-medium side downstream of the evaporator or once-through heating area.

17. (new) The steam generator according to Claim 16, wherein the further evaporator or once-through heating area further comprises a number of steam-generator tubes that are connected in parallel and through which a flow medium flows and is configured such that a steam-generator tube which is heated to a greater extent compared with a further steam-generator tube of the further evaporator or once-through heating area has a greater throughput of the flow medium compared with said further steam-generator tube.

18. (new) The steam generator according to Claim 17, wherein the steam-generator tubes forming the further evaporator or once-through heating area each have a downtake section which is disposed approximately vertically and through which the flow medium can flow in a downward direction, and an uptake section which is connected downstream of said downtake section on the flow-medium side, which is disposed approximately vertically and through which the flow medium can flow in an upward direction.

19. (new) The steam generator according to Claim 18, wherein the evaporator or once-through heating area is dimensioned such that during operation the flow medium flowing into the further once-through heating area connected downstream thereof has a flow velocity greater than the minimum velocity required in order to carry along any steam bubbles present in the evaporator.

20. (new) The steam generator according to Claim 19, wherein the discharge collector of the evaporator or once-through heating area is integrated in a structural unit with a respectively assigned entry collector of the further once-through evaporating heating unit connected downstream on the flow-medium side.

21. (new) The steam generator according to Claim 20, wherein the discharge collector is disposed above the heating-gas duct.

22. (new) The steam generator according to Claim 20, wherein the steam generator is located upstream of which a gas turbine and is connected on a heating-gas side.